REMARKS

Reconsideration of this application is respectfully requested in light of the foregoing amendments and the following remarks.

Claims 59-62 have been cancelled without prejudice or disclaimer.

Claims 52 has been amended for reasons unrelated to patentability, including at least one of: to explicitly present one or more elements implicit in the claim as originally written when viewed in light of the specification thereby not narrowing the scope of the claim, to detect infringement more easily, to enlarge the scope of infringement, to cover different kinds of infringement (direct, indirect, contributory, induced, and/or importation, etc.), to expedite the issuance of a claim of particular current licensing interest, to target the claim to a party currently interested in licensing certain embodiments, to enlarge the royalty base of the claim, to cover a particular product or person in the marketplace, and/or to target the claim to a particular industry.

Claims 84-96 have been added. Claims 52-58 and 84-96 are now pending in this application. Claims 52, 95, and 96 are the independent claims.

I. The Anticipation Rejection

Claims 52-62 were rejected as anticipated under 35 U.S.C. 102(e). In support of the rejection, Logan (U.S. Patent No. 6,243,857) was cited. This rejection is respectfully traversed.

Logan fails to establish a prima facie case of anticipation. *See* MPEP 2131. To anticipate expressly, the "invention must have been known to the art in the detail of the claim; that is, all of the elements and limitations of the claim must be shown in a single prior art reference, arranged as in the claim". *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383, 58 USPQ2d 1286, 1291 (Fed. Cir. 2001). The single reference must describe the claimed subject matter "with sufficient clarity and detail to establish that the subject matter existed in the prior art and that its existence was recognized by persons of ordinary skill in the field of the invention". *Crown Operations Int'l, LTD v. Solutia Inc.*, 289 F.3d 1367, 1375, 62 USPQ2d 1917, 1921 (Fed. Cir. 2002). Moreover, the prior art reference must be sufficient to enable one with ordinary skill in the art to practice the claimed invention. *In re Borst*, 345 F.2d 851, 855, 145 USPQ 554, 557 (C.C.P.A. 1965), *cert. denied*, 382 U.S. 973 (1966); *Amgen, Inc. v. Hoechst*

Marion Roussel, Inc., 314 F.3d 1313, 1354, 65 USPQ2d 1385, 1416 (Fed. Cir. 2003) ("A claimed invention cannot be anticipated by a prior art reference if the allegedly anticipatory disclosures cited as prior art are not enabled").

Moreover, Logan fails to properly establish inherent anticipation. *See* MPEP 2112. "Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." Trintec Indus., Inc. v. Top-U.S.A. Corp., 295 F.3d 1292, 1295, 63 USPQ2d 1597, 1599 (Fed. Cir. 2002). No evidence has been presented that admittedly the "missing descriptive material is 'necessarily present'" in Logan. Specifically, page 4 of the Office Action mailed 17 December 2004 recites "jumping to said another section of said memory during execution of said program when an instruction indicated to be debugged is to be executed Logan – discloses compiling a user-indicated section of a program in another section of memory as shown above. Therefore, accordingly, Logan inherently discloses jumping to another section of memory as claimed." No evidence is presented to support that "Logan inherently discloses jumping to another section of memory.

Logan allegedly recites "[i]t will noted that the debugger 34, is supplied with data on a bus 72 from the unit 60, in which when **an interrupt 74 is inputted** via the keypad 92, **the unit 60 is inhibited** while, at the same time, providing data to the debugger 34 to indicate which block or blocks are being executed at the time of interrupt. Inhibit signals come from the keyboard 92 over a bus 76 as illustrated. See col. 5, lines 27-34.

Each of independent claims 52 and 59, from one of which each of claims 53-58 and 60-62 depends, recites "said entire program is executing and **without significantly interfering with execution timing of said entire program.**" Logan does not teach expressly or inherently "said entire program is executing and **without significantly interfering with execution timing of said entire program**". Accordingly, it is respectfully submitted that the rejection of claims 52, and 59 is unsupported by Logan and should be withdrawn. Also, the rejection of claims 53-58 and 60-62, each ultimately depending from one of independent claims 52 or 59, is unsupported by Logan and also should be withdrawn.

II. The Obviousness Rejection

Claims 52-62 were rejected under 35 U.S.C. 103(a) as being unpatentable over Roy (U.S. Patent No. 6,321,331) in view of Logan (U.S. Patent No. 6,243,857). These rejections are respectfully traversed.

None of the cited references, either alone or in any combination, establish a *prima facie* case of obviousness. "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *See* MPEP 2143.

A. All Elements Are Not Present In Logan and Roy

Logan allegedly recites "a computer" that "compiles the program from the flowchart to control the operations of a machine." See Abstract. Thus, Logan debugs via a "computer" that "compiles" an entire "program."

Roy allegedly recites "a debugging computer 44 which preferably has a copy of the program code stored therein. See, col. 7, lines 31-32. Thus, Roy "preferably has a copy of" the entire "program code stored therein."

Independent claim 52 recites "displaying a section of said program indicated by a user to be debugged, **said section comprising fewer instructions than said entire program**; compiling said section of said program to be debugged in a second section of memory." Independent claim 59 recites "storing a compiled section of said program to be debugged, **said compiled section** of said program **comprising fewer instructions than said entire program.**"

Thus, even if there were motivation or suggestion to modify or combine the cited references (an assumption with which the applicant disagrees), and even if there were a reasonable expectation of success in combining or modify the cited references (another

assumption with which the applicant disagrees), the cited references still do not expressly or inherently teach or suggest **every** limitation of the independent claims, and consequently fail to establish a *prima facie* case of obviousness.

Because no *prima facie* rejection of any independent claim has been presented, no *prima facie* rejection of any dependent claim can be properly asserted.

Consequently, reconsideration and withdrawal of these rejections is respectfully requested.

B. The Proposed Combination is Inoperative

Logan allegedly debugs a PLC program "**upon interrupt**". See col. 4 lines 1-14. Roy allegedly requires "a debugging interface for tracing instructions **without loss of real time context** and event interaction". See col. 2 lines 49-52. By "real time", Roy "means the rate at which a program must execute in order to process the incoming data rate which may be quite high." See col. 1, lines 24-27. Roy describes real time debugging as helpful for identifying if an "error in program execution is the results of timing errors or other types of errors which only occur when the program is running at real time speed." See col. 1, lines 21-24.

Roy states that "prior art methods of trapping instructions at a given point in time implies that the system must be stopped to allow debugging of firmware. Once the system is stopped, however, real time events and their timing relationships are lost." See col. 2, lines 38-43. Thus, one of ordinary skill in the art would find the combination of Logan and Roy to be inoperative and/or to render at least one of Logan and Roy unfit for its intended purpose. Specifically, attempting to combine Logan with Roy would result in an "interrupt" of the "real time context and event interaction" required by Roy, thus rendering Roy inoperative for its intended purpose. Thus, any attempt to combine Logan with Roy would render at least Roy inoperative or unfit for its intended purpose.

Moreover, because "[i]t is improper to combine references where the references teach away from their combination" (see In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983); MPEP 2145), it is improper to combine Roy with Logan.

Thus, Roy and/or Logan fail to establish a *prima facie* case of obviousness for claims 52-62. Consequently, reconsideration and withdrawal of these rejections is respectfully requested.

III. Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

"none of the references of record alone or in combination disclose or suggest the combination of limitations found in the independent claims. Namely, claims 52-58 and 84-96 are allowable because none of the references of record alone or in combination disclose or suggest 'regarding an entire program stored in a first section of memory and executed by a programmable controller, while said entire program is executing and without significantly interfering with execution timing of said program: displaying a section of said program indicated by a user to be debugged, said section comprising fewer instructions than said entire program; compiling said section of said program to be debugged in a second section of memory jumping to said another section of said memory during execution of said program when an instruction indicated to be debugged is to be executed; and capturing a status of said instruction as it is executed.'"

CONCLUSION

It is respectfully submitted that, in view of the foregoing amendments and remarks, the application as amended is in clear condition for allowance. Reconsideration, withdrawal of all grounds of rejection, and issuance of a Notice of Allowance are earnestly solicited.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. 1.16 or 1.17 to Deposit Account No. 50-2504. The Examiner is invited to contact the undersigned at 434-972-9988 to discuss any matter regarding this application.

Respectfully submitted,

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